

REMARKS

Claims 1-20 are pending in the application and have been rejected.

Amendments

Claim 1 is been amended to provide that the food product is of the category wherein the food product is designed to exhibit a crispy or springy characteristic. This amendment is supported in the specification at page 2, lines 28-30 and page 3, line 2. Claims 1, 6 and 12 are amended to provide that the cyclodextrin is added to the food product with no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat. This amendment is supported in the specification at page 6, lines 3-5. Claim 6 is amended to specifically recite the textural aspect of the food product that is improved is the crispness stability of the food product. This amendment is supported in the specification at page 2, lines 28-30.

Claims 13-20 are cancelled in order to expedite prosecution.

New claims 21 and 22 are presented. These claims relate to the embodiments where the food product is a dry cereal comprising a grain component and a dried fruit component, and a preferred embodiment wherein the grain component has a water content of about 5% by weight and the dried fruit component has a water content of greater than about 8%. These claims find support at page 3, lines 23-24 and lines 24-26, respectively.

Response to Rejections

Claims 1, 2, 5, 6, 7, 10, 11, 12, 13, 15, 17, 19 and 20 have been rejected under 35 U.S.C. 102(b) as being anticipated by JP 55-34042 (“JP ‘042”).

JP ‘042 describes the use of cyclodextrin to remove butter-like flavor and to improve meltability of ice cream by adding cyclodextrin to butter or butter oil. It is respectfully submitted that the claims as amended clearly distinguish over this disclosure. First, this reference does not relate to improvement of flavor stability, but rather sequestering an undesirable flavor that may be added to the product. Thus, an element of independent claim 1 is not met by this reference. Second, the claims as amended require that the food product be one that is designed to exhibit a crispy or springy characteristic. Ice cream is very remote from such a product and elements of independent claims 1 and 6 are not met by this reference. Third, JP ‘042 teaches the addition of the butter and/or butter oil to cyclodextrin, followed by emulsification with water. Thus, as apparently described, the cyclodextrin would be in the oil

phase of the emulsion, and would not be hydrated as required in the present claims. This element of independent claim 12 is not met by this reference.

Due to these extensive differences of the present claims from the disclosure of JP 042, it is respectfully submitted that the present claims are not anticipated by this reference.

Claims 1, 2, 5, 6, 7, 10, 11, 12, 13, 15, 17, 19 and 20 have been rejected under 35 U.S.C. 102(b) as being anticipated by Lee (U.S. 5,780,089).

Lee describes a flavor composition wherein, in one example, cyclodextrin is used to encapsulate a pyrolyzed oleic acid flavor. This reference has no disclosure describing adding cyclodextrin to a food product in an amount effective to improve flavor stability, where the cyclodextrin has no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat. Lee therefore lacks an expressly required element of all three independent claims. Lee additionally provides no disclosure related to incorporating at least one cyclodextrin, with no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat, in the food product in an amount effective to improve crispness stability of the food product. Lee therefore lacks an element of claim 6.

It is respectfully submitted that the claims as amended clearly distinguish over the Lee disclosure, and are not anticipated by this reference.

Claims 1, 2, 5, 6, 7, 10, 11, 19 and 20 have been rejected under 35 U.S.C. 102(b) as being anticipated by Prasad et al (U.S. 6,287,603).

Prasad relates to preparing cyclodextrin inclusion complexes, and thus has no disclosure describing adding a cyclodextrin to a food product with no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat. Additionally, the textural property to be improved in Prasad is thickening of soups and drinks (see column 2, lines 46-48), which is very different from improving crispness stability as currently claimed in independent claim 6.

It is respectfully submitted that the claims as amended clearly distinguish over the Prasad disclosure, and are not anticipated by this reference.

Claims 1-20 have been rejected under 35 U.S.C. 103(a) as being unpatentable over JP 55-34042, Lee (U.S. 5,780,089), Prasad et al (U.S. 6,287,603).

As noted above, the claims have been substantially amended to clearly distinguish over the prior art. Applicants have discovered a unique method of preserving desirable properties in

food materials by incorporating at least one cyclodextrin in the food product in an effective amount, wherein the cyclodextrin is added to the food product with no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat. In one of the aspects of the present invention, food flavor stability is improved by incorporating at least one cyclodextrin in the food product in an effective amount, wherein the cyclodextrin is added to the food product with no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat. In one of the aspects of the present invention, food crispness stability is improved by incorporating at least one cyclodextrin in the food product in an effective amount, wherein the cyclodextrin is added to the food product with no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat. In order to provide these unique benefits, a food treatment composition is provided by providing a cyclodextrin, hydrating the cyclodextrin with water, and mixing the hydrated cyclodextrin with a fat to form a cyclodextrin/fat composition with no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat.

It has surprisingly been found that the unique structure of the cyclodextrin in the food product (i.e. no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat) affords beneficial properties of flavor stabilization or crispness stabilization that cannot be attained if the cyclodextrin core is filled with flavorant or other like ingredient.

As noted above, JP '042 describes the use of cyclodextrin to remove butter-like flavor and to improve meltability of ice cream by adding cyclodextrin to butter or butter oil. Thus, rather than preserving flavor stability or crispness, this reference teaches sequestering an undesirable flavor that may be added to an ice cream product. The food product as presently claimed is very different from the ice cream product described in JP '042, and additionally the objective of the described process is very different. It is respectfully submitted that JP '042 does not teach or suggest use of a cyclodextrin having no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat to improve flavor or crispness in a food product that is designed to exhibit a crispy or springy characteristic.

Similarly, Lee describes a flavor composition wherein, in one example, cyclodextrin is used to encapsulate a pyrolyzed oleic acid flavor. This reference therefore teaches that the cyclodextrin must encapsulate a flavor to find usefulness, and provides no motivation to add a cyclodextrin to a food product in an amount effective to improve flavor stability, where the cyclodextrin has no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat. Lee additionally provides no teaching or suggestion that

incorporation of such a cyclodextrin in the food product could improve crispness stability of the food product. In fact, if one were to remove the pyrolyzed oleic acid flavor from the cyclodextrin, one would destroy the very core function of Lee. It is respectfully submitted that modification of the teachings of the Lee disclosure in such a way would be manifestly improper.

As noted above, Prasad relates to preparing cyclodextrin inclusion complexes for delivery of active ingredients as a complex with the cyclodextrin. Prasad requires inclusion of an additional ingredient within the cyclical structure of the cyclodextrin other than fat. The operation of the method taught in this reference therefore is diametrically opposed to the requirements of the present claims as amended. As above, if one were to remove the active ingredient from the cyclodextrin, one would destroy the very core function of Prasad. It is respectfully submitted that modification of the teachings of the Prasad disclosure in such a way would be manifestly improper. Additionally, the textural property to be improved in Prasad is thickening of soups and drinks (see column 2, lines 46-48), which is very different from improving crispness stability as currently claimed in independent claim 6.

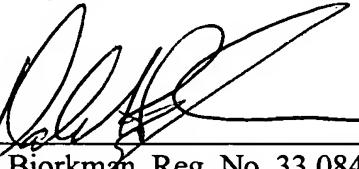
The above references alone or in combination would not have provided the skilled artisan with motivation to preserve the properties of flavor or crispness in food materials by incorporating at least one cyclodextrin in the food product in an effective amount, wherein the cyclodextrin is added to the food product with no additional ingredients contained within the cyclical structure of the cyclodextrin other than fat. The references relate to very different types of food products and additionally relate to inclusion of specific materials in the cyclodextrin prior to introduction to a food product.

With respect to claim 12, it is respectfully submitted that the express teachings of the references teach away from the claimed method. JP '042 teaches the addition of the butter and/or butter oil to cyclodextrin, followed by emulsification with water. Thus, as apparently described, the cyclodextrin would be in the oil phase of the emulsion, and would not be hydrated as required in the present claims. Lee and Prasad both require incorporation of flavors or other active ingredients in the cyclodextrin, which is contrary to express limitations of the claim. The references thus provide no motivation to carry out the method of claim 12 as amended to the skilled artisan.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present application is now in condition for allowance. Early favorable consideration and passage of the above application to issue is earnestly solicited. In the event that a phone conference between the Examiner and the Applicant's undersigned attorney would help resolve any issues in the application, the Examiner is invited to contact said attorney at (651) 275-9811.

Respectfully Submitted,

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31337